Cross Sectional Analysis of Financial Development on Economic Growth

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Abstract

Substantial amount of recent theoretical and empirical work is focused on the role that financial market plays in economic growth. This paper provides a cross-sectional review on the relationship of financial development and economic growth. Although the result indicates that the influence of financial development on economic growth is positive, the level of effect varies on each indicator of financial development.

Contents

I. Introduction

One of the most important responsibilities of modern governments is to regulate and promote growth of the national economy. In a democratic government such as the United States, fiscal policy is among the most hotly debated topics due to the immense impact it can have on the well-being of the population. The unconventional monetary policy the Federal Reserve implemented during and after the 2008 financial crisis prevented the freezing of lending to consumers and businesses and prevented the economy from further spiraling out of control, attracting more attention from scholars to further study how financial system development contributes to economic growth.

The empirical review on economic growth and previous literature related with financial development and economic growth have already proposed numerous explanations of cross-country growth rate and how financial market development contributes to it. Nonetheless, more developed countries have more developed financial markets to provide growing need of transaction services with the growing economic needs to prevent financial market failure.

While more economists are in agreement about the central role that financial development has on economic growth, a more detailed understanding of how financial development directly influences economic growth needs to be further discussed. This paper provides a cross-sectional analysis on three independent variables of financial depth based on previous theory and empirical analysis of related topics. The main focus of this paper is to reveal how credit indicator variables and broad money supply individually and collectively influence GDP per capita growth.

The remainder of the paper proceeds as follows. Section II contains the literature review related to financial development and economic growth; specifically, some papers concentrate on particular regions while other emphasize the cross-sectional comparison. Section III introduces the data that this paper is using, which mainly comes from the World Bank Database. Finally, Sections IV and V state the results we obtained and the conclusions we drew from the regression analysis, as well as presented suggestions for future study.

II. Literature Review

1. Stock Market, Banks, and Economic Growth

Debates have long existed on the relationship between the financial system and economic growth; this article, while based on previous research and historical ideas on the financial market, further investigates whether measures of stock market liquidity, size, volatility, and integration with world capital markets are robustly correlated with current and future rate of economic growth, capital accumulation, productivity improvement and saving rate using data on 47 countries from 1976 through 1993. Specifically, the article found that stock market liquidity, one of the banking and stock market indicators, is positively correlated with current and future rate of economic growth, capital accumulation and productivity growth.

2. Degree of Financial Development and Economic Growth in Qatar: Cointegration and Causality Analysis

This study utilizes time-series data to assess the correlation between various measures of financial development and the growth in real GDP. The study pulls data from Qatar, which at the time of the study (2014) had the fastest growing economy and highest gross GDP per capita in the Gulf Cooperation Council Countries (GCC). The author of the study, Waleed Alkhuzaim, uses the cointegration technique and Granger causality test based on the Error Correction Model (ECM) as a basis for his analysis. Alkhuzaim claims that "This (domestic credit to the private sector as a ratio of GDP) measure of financial development is more directly linked to economic growth (than the others used in the study)." In his conclusion, Alkhuzaim stated that the cointegration technique proved a positive long-run relationship between domestic credit to the private sector and the growth rate of real GDP. The Error Correction Model proved there is no long-run causality between domestic credit to the private sector and real economic growth, and the Granger causality test showed that there was a short-run unidirectional causality between domestic credit to the private sector and real growth rate of GDP.

3. Financial Development, Bank Efficiency and Economic Growth across the Mediterranean

This paper uses the panel data method with a wide and updated range of data from 1970 to 2009. This data includes countries from both the developed and developing regions of the Mediterranean region, with a special focus on the southern Mediterranean countries. The paper also includes institutional variables to

assess whether an improvement in institutions would lead to more growth and if financial development impacts growth when institutions are of a better quality. It utilizes new measures of financial development to assess potential correlation with economic growth. Examples of such measures are the size and liquidity of the financial sector and banking efficiency. The results show that the improvement of institutions is a key factor for growth but is not sufficient to make banking sector development contribute positively to growth. However, when market capitalization is introduced as a dependent variable, the impact of stock market capitalization and turnover becomes positive and economically significant. There are also other conditions that must be met, such as regulations, supervisions, and better quality institutions.

4. Financial Development and Economic Growth: An Overview

Mohsin and Abdelhek (2000) provided a selective overview of the literature that discussed financial depth and economic growth. Based on several indicators of financial depth that were already proposed by previous articles, Mohsin and Abdelhek further provided new empirical evidence with indicators, such as domestic credit to the private sector and stock market capitalization that related with both the banking sector and securities markets. The new dataset includes 159 countries with the period of 1960-1999. The regression analysis confirmed the strong positive and statistically significant relationship between financial depth and growth in the cross section analysis. The financial development on economic growth is as important; however, it might be nonlinear. Reasons for that is a linear model is appropriate for capturing the effect of financial depth on cross-country differences in the long-term growth but not optimal for explaining growth dynamics of individual countries. In addition, financial depth in particular countries varies slowly while growth is much more volatile. Mohsin and Abdelhek (2000) also stated that the three indicators they choose to reflect financial depth might not be the optimal choice, as the data for the banking sector for most developing countries comes from the monetary survey and might not be substantial to judge the market structure.

III. Data

Dependent Variables

Economic growth is evaluated by the growth rate of GDP per capita of each country, which is given in current U.S. dollars and provided by World Bank Database. Here, the growth rate is calculated by taking the natural log of the levelized GDP per capita; it is calculated without making deductions for the depreciation of fabricated assets or the depletion and degradation of natural resources.

Independent Variables

Financial data, such as domestic credit to the private sector as of GDP, domestic credit provided by financial sector as of GDP, and money supply annual growth rate, are published in multiple indexes in the World Bank database. Domestic credit to private sector refers to financial resources provided to the private sector by financial corporations, such as through loans, purchases of nonequity securities, and trade credits and other accounts receivable. For some countries these claims include credit to public enterprises. The financial corporations include monetary authorities and deposit money banks, as well as other financial corporations where data are available. Domestic credit provided by financial sector is similar to domestic credit provided to private sector but shows data on the opposite side. Domestic credit provided by the financial sector includes all credit to various sectors on a gross basis, with the exception of credit to the central government, which is on a net basis. The financial sector includes monetary authorities and deposit money banks, as well as other financial corporations where data are available. Money and quasi money are usually referred to as M2, and although they might not indicate the ability to link borrowers to lenders, they nonetheless show the ability of the financial system to provide transaction services, comprise the sum of currency outside banks, and demand deposits other than those of the central government. The change in the money supply is measured as the difference in end-of-year totals relative to the level of M2 in the preceding year and is a partial indicator of financial development and financial depth.

Control Variables

As we are investigating the relationship between financial development and economic growth, factors that affect GDP but are not directly associated with financial development need to used as control variables. Since the GDP growth rate is calculated based on current US dollar values, inflation does not influence the result. Instead , we used General government final consumption expenditure, gross savings as a percentage of GDP, and GNI index to indicate whether the country is a developed country or a developing country. General government final consumption expenditure includes all government current expenditures

for purchases of goods and services. It also includes most expenditures on national defense and security, but excludes government military expenditures that are part of government capital formation. Since it is not directly influenced by financial development but take major role in economic growth, it is taken as a control variable. Gross savings are calculated as gross national income less total consumption, plus net transfers. GNI per capita based on purchasing power parity (PPP). PPP GNI is gross national income (GNI) converted to international dollars using purchasing power parity rates. GNI is the sum of value added by all resident producers plus any product taxes (with the exception of subsidies) not included in the valuation of output plus net receipts of primary income from abroad. Data are in current international dollars based on the 2011 ICP round. The GNI per capita index was used to differentiate developed and developing countries (see Figure 4). Developed or developing countries. For the current 2016 fiscal year, low-income economies are defined as those with a GNI per capita, calculated using the *World Bank Atlas* method, of $1,045 or less in 2014; middle-income economies are those with a GNI per capita of more than $1,045 but less than $12,736; high-income economies are those with a GNI per capita of $12,736 or more. Here we identify high income economies as developed country and middle and low income economies as developing countries.

Gauss Markov Assumption Test

Simple linear regression is performed on each of the independent variables with dependent variable, natural log of GDP per capita (see Figures 1-3). Regressions shows that although certain level of collinearity might exist, there is no perfect collinearity between each independent variable with the dependent variable. This indicates that the Gauss Markov Assumptions are fulfilled by the multiple regression model.

Summary Statistics

The dataset includes 102 countries (comprising both developed and developing countries) and ranges from 2005-2014 from World Bank Database with blank entries disregarded. The regression has been estimated using five-year average with the appropriate math calculation such as natural log. Economic growth and financial development are measured by:

1. capita: GDP per capita in current U.S. dollar
2. fin: domestic credit provided by financial sector as a share of GDP
3. money: annual money and quasi money growth rate
4. priv: domestic credit to the private sector as a share of GDP
5. gov: general government final consumption expenditure as a share of GDP

6. saving: gross savings as a share of GDP
7. GNI: gross national income per capita based on purchasing power parity
8. developed: binary indicator of developed country, where ‘1’ means developed country and ‘0’ means developing country

Note: All data was taken as an average from 2010-2014.

IV. Results

In our preliminary simple regression tests, we found that there were strong positive correlations between our measures of financial development and the natural log of GDP per capita (see Figure 5).

$$ln\,(capita) = \beta_0 + \beta_1 priv + \mu$$

Our first regression was using domestic credit to the private sector as the sole independent variable, and the predicted coefficient was 0.019. This signifies that for every 1 unit change in the private sector variable, there is a corresponding 1.9 % increase in GDP per capita. The t-value associated with this coefficient is 8.74, so there is ample statistical evidence at the 99% significance level that they positively correlate, which agrees with our hypothesis.

$$ln\,(capita) = \beta_0 + \beta_2 fin + \mu$$

Our second simple regression test used domestic credit provided by financial sector as the independent variable. The predicted coefficient was 0.014, which infers that for every 1 unit change in the domestic credit variable, there is a corresponding 1.4 % increase in GDP per capita. The t-value associated with this coefficient is 8.40, which is statistically significant at the 99% significance level and agrees with our hypothesis.

$$ln\,(capita) = \beta_0 + \beta_3 money + \mu$$

Our last simple regression test used actual money and quasi money growth rate as the independent variable, and the predicted coefficient was 0.014. This infers that for every 1 unit change in the money supply variable, there is a corresponding 1.4 % increase in GDP per capita. The t-value associated with this coefficient was 5.83, which is statistically significant at the 99% significance level and concurs with our hypothesis.

We used several multiple variable regression models in our study, each using the control variables to better isolate the effect of the financial development indicator variables (see Figure 6). We regressed individual financial variables against the control variables, then pooled all of our financial indicators together to see how they interacted.

$$ln\,(capita) = \beta_0 + \beta_1 priv + \beta_4 gov + \beta_5 saving + \mu$$

Our first multiple variable regression model used domestic credit to the private sector, government expenditures, and gross savings rate as the independent variables explaining changes in GDP per capita. From the simple regression results, we decided that since the private sector variable was the highest correlated with economic growth, it would be the one independent variable we would model against the control variables. The β_1 coefficient was 0.016, inferring that for every 1 unit change in the private sector variable, there is a corresponding 1.6 % increase in GDP per capita. The t-value associated with β_1 was

7.86, which is statistically significant at the 99% significance level. The β_4 coefficient was 0.087, which signifies that for every 1 unit increase in government expenditure, there is a corresponding 8.7% increase in GDP per capita. The t-value associated with β_4 was 4.76, which is statistically significant at the 99% significance level. The β_5 coefficient was 0.028, which infers that for every 1 unit increase in the savings rate, there is a corresponding 2.8% increase in GDP per capita. The t-value associated with β_5 was 3.23, which is statistically significant at the 99% significance level.

$$ln\ (capita) = \beta_0 + \beta_2 fin + \beta_4 gov + \beta_5 saving + \mu$$

The second multiple regression model used domestic credit provided by the financial sector, government expenditures, and gross savings rate as the independent variables explaining changes in GDP per capita. The β_2 coefficient was 0.012, inferring that for every 1 unit change in the domestic credit variable, there is a corresponding 1.2 % increase in GDP per capita. The t-value associated with β_2 was 7.38, which is statistically significant at the 99% significance level. The β_4 coefficient was 0.078, which signifies that for every 1 unit increase in government expenditure, there is a corresponding 7.8% increase in GDP per capita. The t-value associated with β_4 was 4.08, which is statistically significant at the 99% significance level. The β_5 coefficient was 0.033, which infers that for every 1 unit increase in the savings rate, there is a corresponding 3.3% increase in GDP per capita. The t-value associated with β_5 was 3.80, which is statistically significant at the 99% significance level.

$$ln\ (capita) = \beta_0 + \beta_3 money + \beta_4 gov + \beta_5 saving + \mu$$

The third multiple regression model used annual money and quasi money growth rate, government expenditures, and gross savings rate as the independent variables explaining changes in GDP per capita. The β_3 coefficient was 0.013, inferring that for every 1 unit change in the money and quasi money growth rate, there is a corresponding 1.3 % increase in GDP per capita. The t-value associated with β_3 was 6.13, which is statistically significant at the 99% significance level. The β_4 coefficient was 0.120, which signifies that for every 1 unit increase in government expenditure, there is a corresponding 12.0% increase in GDP per capita. The t-value associated with β_4 was 6.30, which is statistically significant at the 99% significance level. The β_5 coefficient was 0.027, which infers that for every 1 unit increase in the savings rate, there is a corresponding 2.7% increase in GDP per capita. The t-value associated with β_5 was 2.90, which is statistically significant at the 99% significance level.

$$ln\ (capita) = \beta_0 + \beta_1 priv + \beta_2 fin + \beta_3 money + \beta_4 gov + \beta_5 saving + \mu$$

The complete multiple regression model used domestic credit to the private sector, domestic credit provided by the financial sector, annual money and quasi money growth rate, government expenditures, and gross savings rate as the independent variables explaining changes in GDP per capita. The β_1

coefficient was 0.010, signifying that for every 1 unit change in the private sector variable, there is a corresponding 1.0 % increase in GDP per capita. The t-value associated with β_1 was 1.81, which is not statistically significant at the 99% significance level. The β_2 coefficient was 0.002, inferring that for every 1 unit change in the domestic credit variable, there is a corresponding 0.2 % increase in GDP per capita. The t-value associated with β_2 was 0.52, which is not statistically significant at the 99% significance level. The β_3 coefficient was 0.003, inferring that for every 1 unit change in the money and quasi money growth rate, there is a corresponding 0.3 % increase in GDP per capita. The t-value associated with β_3 was 1.19, which is not statistically significant at the 99% significance level. The β_4 coefficient was 0.089, which signifies that for every 1 unit increase in government expenditure, there is a corresponding 8.9% increase in GDP per capita. The t-value associated with β_4 was 4.58, which is statistically significant at the 99% significance level. The β_5 coefficient was 0.028, which infers that for every 1 unit increase in the savings rate, there is a corresponding 2.8% increase in GDP per capita. The t-value associated with β_5 was 3.17, which is statistically significant at the 99% significance level.

The relatively high standard errors on our domestic credit to the private sector and domestic credit provided by the financial sector variables in the complete multiple regression model prompted us to investigate potential multicollinearity. We conducted a joint-significance test, using the two credit variables as the restrictions, and concluded that there is significant multicollinearity between the two variables. The F-value associated was 9.64, with the critical F-value being approximately 4.9. Due to these results, we decided that additional modeling needed to be done to reduce the effect of multicollinearity on the results.

$$ln\,(capita) = \beta_0 + \beta_1 priv + \beta_3 money + \beta_4 gov + \beta_5 saving + \mu$$

This multiple variable regression model used domestic credit to the private sector, annual money and quasi money growth rate, government expenditures, and gross savings rate as the independent variables explaining changes in GDP per capita. The β_1 coefficient was 0.013, signifying that for every 1 unit change in the private sector variable, there is a corresponding 1.3 % increase in GDP per capita. The t-value associated with β_1 was 4.38, which is statistically significant at the 99% significance level. The β_3 coefficient was 0.004, inferring that for every 1 unit change in the domestic credit variable, there is a corresponding 0.4 % increase in GDP per capita. The t-value associated with β_3 was 1.25, which is not statistically significant at the 99% significance level. The β_4 coefficient was 0.092, which signifies that for every 1 unit increase in government expenditure, there is a corresponding 9.2% increase in GDP per capita. The t-value associated with β_4 was 4.92, which is statistically significant at the 99% significance

level. The β_5 coefficient was 0.027, which infers that for every 1 unit increase in the savings rate, there is a corresponding 2.7% increase in GDP per capita. The t-value associated with β_5 was 3.14, which is statistically significant at the 99% significance level.

$$ln\,(capita) = \beta_0 + \beta_2 fin + \beta_3 money + \beta_4 gov + \beta_5 saving + \mu$$

Our last multiple regression model used domestic credit provided by the financial sector, annual money and quasi money growth rate, government expenditures, and gross savings rate as the independent variables explaining changes in GDP per capita. The β_2 coefficient was 0.009, inferring that for every 1 unit change in the domestic credit variable, there is a corresponding 0.9 % increase in GDP per capita. The t-value associated with β_1 was 3.96, which is statistically significant at the 99% significance level. The β_3 coefficient was 0.005, inferring that for every 1 unit change in the domestic credit variable, there is a corresponding 0.5 % increase in GDP per capita. The t-value associated with β_3 was 1.77, which is not statistically significant at the 99% significance level. The β_4 coefficient was 0.087, which signifies that for every 1 unit increase in government expenditure, there is a corresponding 8.7% increase in GDP per capita. The t-value associated with β_4 was 4.43, which is statistically significant at the 99% significance level. The β_5 coefficient was 0.031, which infers that for every 1 unit increase in the savings rate, there is a corresponding 3.1% increase in GDP per capita. The t-value associated with β_5 was 3.51, which is statistically significant at the 99% significance level.

Considering the diversity of countries in our sample, we wanted to see if there were different regression equations for developed countries and developing countries. We categorized countries on their level of development by their GNI (World Bank's measure of level of development), and assigned each country a binary value of 0 or 1 for developing or developed respectively. Then we conducted a Chow test, using the complete multiple variable regression models (see Figures 7-8), to see if there was indeed a difference in regression equations. The F-value resulting from our Chow test was 8.14, with a corresponding critical F-value of about 3.2. This indicated that there was a significant difference in regression equations. We looked at the different regression models, and concluded that domestic credit to the private sector is much more impactful on economic growth in developing countries.

V. Conclusions

In this paper, we conducted a cross-sectional analysis of the relationship between financial development and economic growth. Based on previous literature, we introduced new indicators of financial development on a data set that included 102 countries.

Previous journals have indicated a positive correlation between financial development and economic growth, but they have always utilized time-series or panel data sets. Most of the literature focuses on data from one country or region, while other articles used data that is outdated; this paper provides a new empirical review on recent data that covers the 2008 financial crisis period.

We concluded that all of the financial development indicators had a strong positive correlation (at 99% significance) with economic growth in simple regressions, and once the models were controlled for government expenditure and gross savings rate. For our complete model, all of the financial indicators positively correlated with economic growth, but were statistically insignificant at the 95% significance level, largely due to a high level of multicollinearity between two of our financial variables. We conducted a joint significance test between the private sector credit and domestic credit variables, which proved to be statistically significant, confirming our suspicions of strong multicollinearity. We corrected this by creating two models with either credit variable, which resulted in both credit variables being statistically significant at 99% in their respective models; however, money and quasi money was not statistically significant in either of those models.

Separating the countries by their level of development provided us with new insight on how the financial variables affect economic growth in different conditions. Interestingly enough, domestic credit to the private sector had a much greater significance on economic growth in developing countries than in developed countries. We believe this is due to developing countries having a smaller credit market, so when the credit lent increases, it has a greater impact on economic growth than in an already well established credit market, like those found in developed countries. We conducted the Chow test to determine whether developing countries and developed countries had statistically significant regression models, and in doing so the two subsets proved to be statistically different.

In this study, we were limited by incomplete data provided by our source, which impeded the number of observations we could test. This problem of micronumerosity limited how accurately we could control for economic growth, and could possibly skew the representation of developing countries in our dataset.

Additionally, there might be a better collection of indicators which reflect the extensive financial market. In conclusion, there is clearly a positive correlation exist between financial development with economic growth, and further research should be conducted to reveal more refined relationship between the financial development and economic growth.

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Appendix

Figure 1: Scatter of domestic credit to the private sector as a share of GDP and log(GDP per capita)

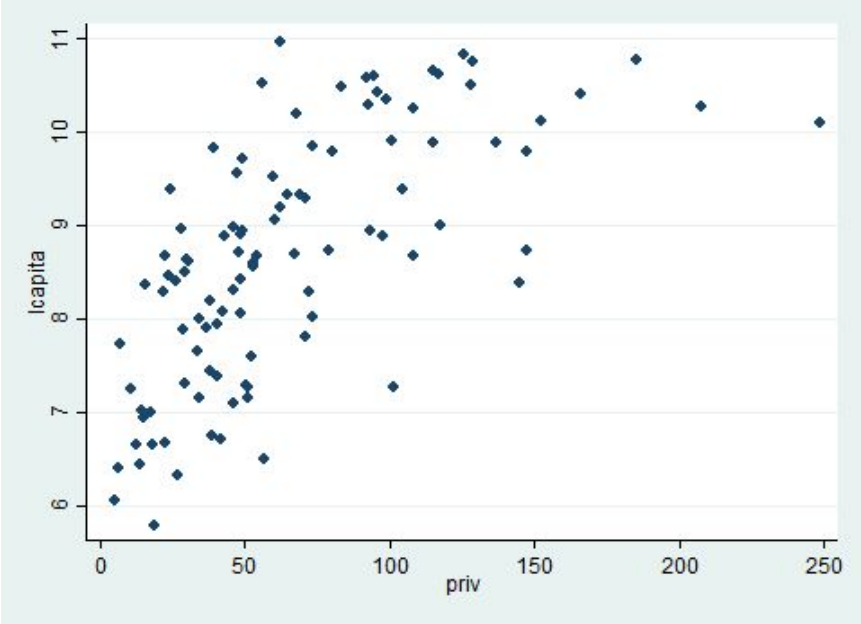

Figure 2: Scatter of domestic credit provided by financial sector as a share of GDP and log(GDP per capita)

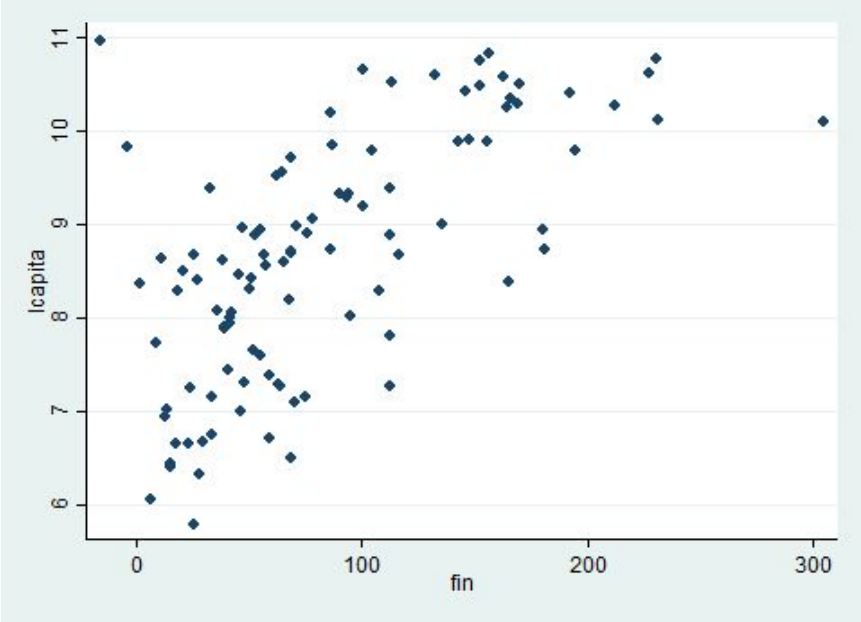

Figure 3: Scatter of annual money and quasi money growth rate and log(GDP per capita)

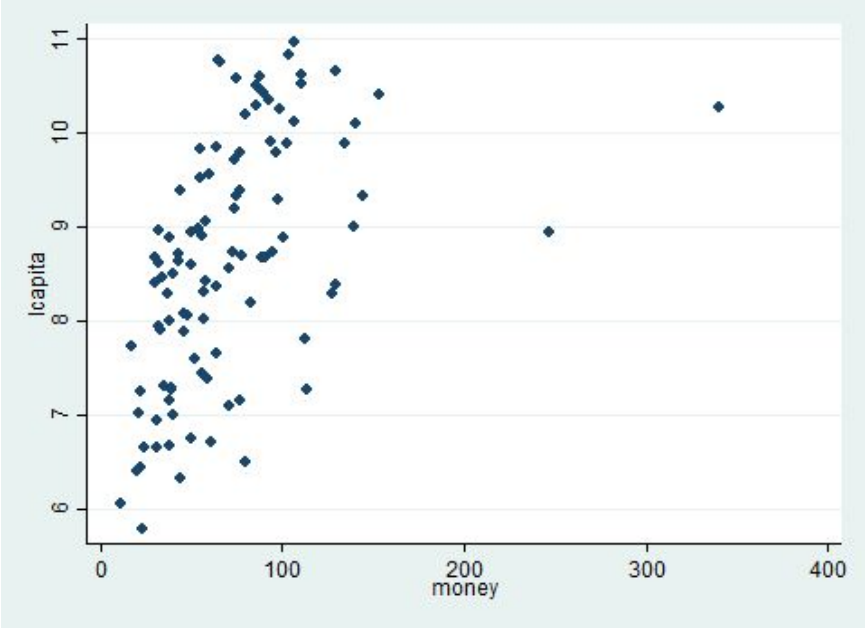

Figure 4: Table of all countries used in the dataset

Developing Country			Developed Country		
Albania	Honduras	Sao Tome and Princip	Algeria	Germany	Turkey
Angola	India	Saudi Arabia	Antigua and Barbuda	Greece	United Kingdom
Armenia	Indonesia	Sierra Leone	Australia	Hong Kong SAR, China	Uruguay
Austria	Jordan	Slovak Republic	Azerbaijan	Iceland	Grand Total
Bangladesh	Kyrgyz Republic	Slovenia	Bahamas, The	Israel	
Burundi	Least developed coun	South Africa	Belarus	Italy	
Cambodia	Lower middle income	South Asia	Belgium	Korea, Rep.	
Cameroon	Macao SAR, China	Spain	Botswana	Latin America & Caribbean (all income levels	
Colombia	Macedonia, FYR	St. Lucia	Brazil	Latin America & Caribbean (developing only	
Congo, Dem. Rep.	Moldova	St. Vincent and the G	Bulgaria	Lebanon	
Czech Republic	Mongolia	Sub-Saharan Africa (a	Chile	Malaysia	
Dominica	Morocco	Sub-Saharan Africa (d	Costa Rica	Mauritius	
Dominican Republic	Mozambique	Sudan	Croatia	Mexico	
Ecuador	Namibia	Tanzania	Cyprus	Netherlands	
Europe & Central Asia	Nepal	Uganda	Denmark	Portugal	
Finland	Nicaragua	Ukraine	Estonia	Romania	
Georgia	Pakistan	Vietnam	Euro area	Singapore	
Grenada	Paraguay	West Bank and Gaza	Europe & Central Asia	St. Kitts and Nevis	
Guatemala	Peru		European Union	Sweden	
Heavily indebted poo	Philippines		France	Thailand	

Figure 5: Table of Simple Regression Statistics for Pooled Data

Dependent Variable log(capita)			
Independent Variables	Model (1)	Model (2)	Model (3)
priv	0.019		
	(8.74)**		
fin		0.014	
		(8.40)**	
money			0.014
			(5.83)**
_cons	7.413	7.512	7.609
	(42.96)**	(44.53)**	(35.96)**
No. of obs.	101	101	101
R-square	0.44	0.42	0.26
*significant at 5% level, ** significant at 1% level			

Figure 6: Table of Multiple Variable Regression Statistics for Pooled Data

Dependent Variable log(capita)				
Independent Variables	Model (1)	Model (2)	Model (3)	Model(4)
priv	0.016			0.01
	(7.86)**			-1.81
fin		0.012		0.002
		(7.38)**		-0.52
money			0.013	0.003
			(6.13)**	-1.19
gov	0.087	0.078	0.12	0.089
	(4.76)**	(4.08)**	(6.30)**	(4.58)**
saving	0.028	0.033	0.027	0.028
	(3.23)**	(3.80)**	(2.90)**	(3.17)**
_cons	5.615	5.709	5.208	5.498
	(14.82)**	(14.75)**	(12.32)**	(13.88)**
No. of obs.	101	101	101	101
R-square	0.56	0.54	0.48	0.57
*significant at 5% level, ** significant at 1% level				

Figure 7: Table of Multiple Variable Regression Statistics for Developed Countries Data

Dependent Variable log(capita)				
Independent Variables	Model (1)	Model (2)	Model (3)	Model(4)
priv	0.007			0.001
	(4.50)**			-0.22
fin		0.006		0.006
		(4.88)**		-1.41
money			0.005	0
			(3.04)**	-0.13
gov	0.077	0.062	0.101	0.065
	(4.33)**	(3.45)**	(5.08)**	(2.96)**
saving	0.006	0.012	0.004	0.011
	-0.7	-1.33	-0.45	-1.17
_cons	7.445	7.479	7.277	7.442
	(17.47)**	(18.21)**	(14.23)**	(16.02)**
No. of obs.	43	43	43	43
R-square	0.55	0.57	0.44	0.57
*significant at 5% level, ** significant at 1% level				

Figure 8: Table of Multiple Variable Regression Statistics for Developing Countries Data

Dependent Variable log(capita)				
Independent Variables	Model (1)	Model (2)	Model (3)	Model(4)
priv	0.019			0.029
	(4.63)**			(2.77)**
fin		0.01		-0.011
		(3.13)**		-1.75
money			0.019	0.006
			(3.98)**	-0.86
gov	0.065	0.073	0.078	0.068
	(2.64)*	(2.75)**	(3.13)**	(2.80)**
saving	0.026	0.032	0.02	0.019
	(2.27)*	(2.63)*	-1.68	-1.61
_cons	5.564	5.645	5.295	5.466
	(11.33)**	(10.57)**	(10.09)**	(10.92)**
No. of obs.	58	58	58	58
R-square	0.43	0.33	0.39	0.47
*significant at 5% level, ** significant at 1% level				